



ENVIRONMENTAL *Update*

Nebraska Department of Environmental Quality

Summer 2001

Ethanol Growth Trend Expected to Continue

Ethanol production is increasing dramatically in Nebraska, and it has yielded many significant benefits, including:

- Greater production of cleaner burning fuel;
- An expanded market for Nebraska's corn; and
- Several thriving new businesses across the state.

The Nebraska Department of Environmental Quality has an important role in this dynamic growth of a new industry – the agency must ensure that these new and expanding facilities are complying with all environmental regulations.

It may seem a paradox that those industries that are producing cleaner burning fuels are receiving such a watchful eye from DEQ's air quality specialists. However, the production of ethanol can adversely impact air quality, if not done properly. State oversight has therefore increased as the ethanol industry has grown. And the growth has been dramatic.

Currently, there are seven ethanol plants in Nebraska, which collectively produced 355 million gallons of ethanol in 2000. Ten years ago, the state had only one ethanol plant, and annual production was 10 million gallons. Recently, DEQ has received permit applications for two new plants, and expansion plans for three existing facilities, which could add 200 million gallons of production per year, if all permits are approved.

The national demand for ethanol is



expected to continue to grow over the next few years. One of the reasons for this is because the other main alternative to ethanol – an additive called MTBE – has contaminated drinking water in some areas of the nation (see related story, page 9.)

The Environmental Protection Agency (EPA) requirement that some states need to use an additive to make fuel burn cleaner is being challenged. If those challenges are unsuccessful, the need for ethanol will continue to grow significantly. The EPA estimates that demand will more than double, from 1.4 billion gallons in 2000, to 3.1 billion gallons in 2004. And, since corn is plentiful in the Midwest, this is a logical

place for the industry to continue to expand.

In some cases, last-minute permit proposals for new facilities or expansions have caused frustration for both the agency and ethanol producers, said Shelley Kaderly, DEQ Air Quality Division Administrator.

"It is understandable that ethanol producers want to expand quickly to respond to increased demand," Kaderly said. "But, there have been some cases where the producers have simply waited far too long to contact us.

"Producers should contact the agency very

early in the planning process, to explain their plans. We want to work with ethanol producers to ensure a timely permitting process, but that can't happen if we don't know what they are planning."

Kaderly said the agency has recently compiled a packet of information for new potential ethanol plant owners. This packet includes a permit application, instructions, and tips to ensure a smooth permitting process. To obtain a packet or discuss ethanol issues with staff, contact the Air Quality Section at (402) 471-2189.

Not only is it a good idea for ethanol

Jared Pfister, a student who hails from Purdum, Neb., said he uses ethanol because coming from a rural community, he wants to support agriculture.

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A Message From The Director



Mike Linder

In our front-page story about the ethanol industry, we mention a frustration which sometimes occurs between our agency and a variety of industries: Businesses want permits quickly, in order to begin work, while DEQ needs thorough information to

"The best path to success is for businesses to communicate with DEQ as early as possible in their planning process."

ensure that the environment is protected.

One reason frustrations occur is that businesses do not initially provide adequate information to DEQ, and the permitting process is therefore

slowed.

With the right planning and communication, these frustrations can be reduced or eliminated.

The best path to success is for businesses to communicate with DEQ as early as possible in their planning process. DEQ's Environmental Assistance program can put them in contact with the appropriate department staff, and can help businesses though the permitting process.

Without this early consultation, we often see that an applicant's first submission is incomplete, and we send it back for more information. This can raise the cry of "government bureaucracy" from the applicant who wants to begin construction of a new facility. But there's an important difference between bureaucracy and taking a thorough, professional approach to reviewing applications to assure protection of public health and the environment.

As the state environmental protection agency, we are accountable to the public for the quality of the state's environment. Therefore, before DEQ approves a permit, we need to make sure the proposed operation is in

compliance with all rules and regulations.

It is to a business's advantage to make sure that it has provided complete information to the agency at the outset. It makes better sense to address all environmental issues in the planning stage, rather than to later learn that improper design will require facility changes. Moreover, if businesses begin working with DEQ early in their own planning process they will have a better understanding of what information is needed and why.

We all need to take responsibility for ensuring Nebraska's environment is protected, and these considerations should be incorporated from the outset of the planning process for a new business or an expansion of an existing business. We want to help Nebraska businesses succeed, but we take our responsibilities seriously.

Contact us, and we'll help you work through these important, and sometimes complicated, issues.

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We'd like to hear from you...

The Environmental Update staff welcome your thoughts and ideas on environmental issues.

If you have questions, comments, or suggestions for future topics for this newsletter, please contact the Public Information Office.

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Air Quality Effort Moves Forward as EPA Clock Counts Down

DEQ staff and representatives from industry, local governments, and other state agencies have been hard at work developing and implementing a plan to reduce air pollution in Cass County, in the Weeping Water area. Air quality monitors in this area, which has a high concentration of limestone quarries and trucking operations, have measured levels of particulate matter above the national ambient air quality standard four times since DEQ started local monitoring in 1985.

National air quality standards were established for particulate matter and other air pollutants by the federal government in the Clean Air Act, and are designed to protect human health. (Particulate matter is solid particles or liquid droplets emitted by industrial sources, agricultural activities, and motor vehicles, as well as natural sources such as fires.) Due to the repeated exceedences of the particulate matter air quality standard in the Weeping Water area, DEQ is working with local officials and industry representatives to develop a voluntary plan to meet the requirements of the Clean Air Act. The Environmental Protection Agency (EPA) has set a deadline of February 2002 for DEQ to submit the plan.

The EPA could have designated the Weeping Water area to “non-attainment” status that would have tied plans to rigid time frames and more extensive requirements. The opportunity to develop the voluntary plan, which is less stringent and less costly than the alternative, became the motivation for the initial meeting in January 2001 of the businesses and agencies involved. The voluntary

approach still requires intensive effort but allows far more discretion. The EPA has indicated their belief that the voluntary proactive approach could result in a quicker implementation of emission controls than under a non-

The laboratory report, released in February, stated that calcite was the dominant mineral, while quartz was the secondary mineral found in a majority of the filters. Calcite is common to industries such as limestone quarries/crushing plants, cement manufacturing plants, and roads surfaced with limestone gravel. Quartz is a common component of soils, and could have resulted from wind-blown dust or farming activities.



A combination of heavy truck traffic, and blowing dust from rock quarries are two of the factors that contribute to the air quality situation near Weeping Water. Photos taken at the intersection of Hwy. 13K and 156th Street.



Photos by Yvonne Austin

“The department appreciates the efforts and resources that the Cass County Air Conservation Association is willing to devote to this project.”

attainment reclassification.

The Cass County Air Conservation Association, consisting of the major limestone producers in the area, came forward early in the process and offered their assistance and commitment to moving ahead with the voluntary efforts, said Shelley Kaderly, DEQ’s Air Quality Division Administrator.

“The department appreciates the efforts and resources that the Cass County Air Conservation Association is willing to devote to this project,” Kaderly said. “We look forward to working with the association’s members to find solutions and solve the air quality problems the Weeping Water area is facing.”

Study Results

A study conducted by Research Triangle Institute of North Carolina determined the composition of the particulate matter collected by DEQ air quality monitors, and attempted to determine the sources of the emissions.

Developing a Program

The city of Weeping Water, Cass County, DEQ, and EPA officials, along with generators of particulate matter emissions in the Weeping Water area, are now developing a proactive program for improving and maintaining the area’s air quality. The Cass County Air Conservation Association has hired Trinity Consultants of Olathe, Kansas to assist with the project, which will include:

- The development of an inventory of the various particulate sources in the area, and a measure of the potential of each source to emit particulate matter;
- Applying the inventory to a computer model, which will simulate conditions in the area and identify where problems (exceedences of the air quality standard) are likely to occur. The modeling study will consider numerous variables, including limestone processing activities, paved and unpaved roadways, traffic, land uses, terrain, meteorological data, and particulate matter dispersion; and
- Implementing strategies to control the identified sources of particulates.

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Electronic Waste:

A New Challenge For A New Millennium

Walk into most households in the U.S. today, and you will find at least one television and a computer. Most businesses and other organizations now also use computers, and consider them essential to conduct business. But today's latest and greatest television or computer will eventually break down or no longer serve its owner's needs. It then becomes part of a fast-growing type of waste: electronic waste, or e-waste, as it is commonly referred to.

Estimates of the numbers of televisions and computers considered obsolete, unwanted, or unusable every year vary widely, with some estimates as high as tens of millions. Regardless of the actual numbers, there is no doubt that they are enormous. And enormous numbers mean an enormous problem, if it is all just considered waste and handled as trash. But Jim Harford, DEQ Hazardous Waste Compliance Assistance Specialist, prefers to think in terms of opportunity, rather than waste.

"Over 97 percent of computer contents can be reused or recycled," he said. "This offers a great opportunity to significantly reduce the amount of e-waste that ends up as trash being sent to our landfills. It is important to think of these items as valuable and reusable, rather than junk."

Millions of computers, computer monitors, and televisions ending up in landfills is not only a waste of resources, Harford said, it could be a threat to the environment because e-waste contains hazardous materials. "A major culprit in the hazardous waste arena is the computer monitor and television cathode ray tube. The CRT, as it is commonly called, often contains from five to eight pounds of lead.

In addition, computers may also contain lead, silver, cadmium, mercury, selenium, and chromium. These are items best kept out of our landfills."

Current waste management

Computer and television waste is managed like any other solid waste. Under state and federal waste



Computers, monitors and keyboards line the tables at the state's surplus property facility. Equipment that isn't eventually sold at auction is recycled.

management regulations, hazardous waste produced by households is not regulated. Households disposing of computers, monitors, and televisions are allowed to put these items in the trash, for landfill disposal. DEQ discourages landfill disposal, but no federal or state laws presently prevent it. All other generators of electronic waste (businesses, government agencies, non-profit organizations, and other non-household generators) may be subject to hazardous waste rules due to the hazardous components found in the waste. DEQ encourages reuse and recycling of e-waste whenever possible and feasible.

Finding ways to keep electronic waste out of landfills is a challenge now facing electronic equipment manufacturers, recycling and waste management organizations, elected officials, and environmental regulatory agencies such as DEQ. At present, many households have little choice but to put obsolete or broken electronic items in the trash.

"We do recognize the problem,"

Harford said. "We have been, and will continue to, examine options which would encourage full recycling of electronic equipment components in such a way as to reduce landfill disposal. We have based our policies and advice on current regulations, but we recognize that additional steps will need to be taken."

Dealing with e-waste

Some of the efforts that are currently underway to deal with e-waste include:

- Computer equipment manufacturers that offer "take back" programs;
- The Keep Nebraska Beautiful Materials Exchange Program. This program encourages computer reuse and recycling. In a recent month, the program found new homes for nearly 50 computers, and found recycling outlets for over 30,000 pounds of computer equipment;
- Businesses that accept obsolete or unwanted electronic equipment for refurbishing and reuse, or recycling of components if the equipment is no longer useable; and
- Non-profit organizations that accept working computers and televisions for use or resale.

The Future of E-Waste

One thing is certain; electronic waste is with us to stay. And it's likely to continue increasing in volume. "A serious challenge we are facing is that refurbishing and reuse of computers and televisions, while desirable and encouraged, just delays the ultimate disposal problem," Harford said. "These items will eventually be unusable, and it will be important to have programs in place that divert this waste from landfills."

The key to avoid becoming buried under mountains of discarded computers, computer monitors, and televisions is the development of viable markets for recycling this type of waste, Harford said. The markets need to be broadly based so that people can get

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...Weeping Water, *continued from page 3*

Ongoing air quality monitoring will help evaluate the success of the project.

Emission Sources and Controls

A key to the success of the Weeping Water plan will be to not only identify the sources of particulate emissions in the Weeping Water area, but determining and implementing appropriate methods of controlling the emissions. Common sources of emissions from crushed stone

processing operations include truck loading and unloading, crushing, screening, conveyors, feeders, chutes, feed hoppers, and storage piles. Control options available to crushed stone processing sources include water sprays, fabric filter type bag filters, cyclones (centrifugal collectors), and partial or total enclosures.

Truck traffic in and around these types of operations is also a major consideration in determining emission sources and controls. Some options for reducing emissions from unpaved haul roads include vehicle restrictions

(limiting the speed, weight, or number of vehicles on the road), surface improvements (paving or adding gravel or slag to a dirt road), and surface treatment (watering or treatment with a chemical dust suppressant).

Paved roadway controls are generally either preventive or mitigative. Preventive measures avert material from being deposited on the road surface. Examples may include covering loads, paving entrance and exit driveways, or installing truck and wheel wash stations. Mitigative controls involve removing material from traffic lanes, and may include vacuum sweeping or broom sweeping. Water flushing or washing paved surfaces can be an option on private roads, but is prohibited on publicly owned roadways by state regulations.

Field Office Opens in Norfolk

Article by Rich Webster

The Department of Environmental Quality has opened its fifth field office, giving the department a permanent presence in northeast Nebraska. The Northeast Field Office, located in downtown Norfolk at the Iron Horse Professional Building, opened for business on April 1. DEQ currently has one staff member assigned to the office, and plans to add a second during 2001.

Opening the Norfolk office furthers the department's commitment to be more accessible to the public. DEQ opened offices in Omaha and Holdrege in 2000, and has had offices in North Platte and Chadron since the 1970s. An additional office will be established this year in Scottsbluff. "The field offices allow us to be more responsive to the state's citizens," said Julie Powers, Field Office Section Supervisor. "Field office staff can stay abreast of local issues and concerns, and are in a position to respond more quickly than staff who must travel from Lincoln."

Rob Finkral, DEQ's Norfolk staff member, was hired in February and spent about six weeks training with Lincoln staff. At present, he is focusing on air quality compliance inspections and complaint investigations. Citizens in northeast Nebraska are encouraged to contact Rob with any questions, concerns, or complaints. Being the "new kid on the block," he may not be able to answer the question or personally investigate the concern, but he will ensure that messages are relayed to the proper staff in Lincoln.



Photo by Brian McManus

On April 21st, the 30th anniversary of Earth Day was celebrated in Norfolk and throughout the country. Rob Finkral (above right) of DEQ and officials from NPPD teamed up at the Norfolk Mall to promote the wise use of energy.

Northeast Field Office contact information:

Nebraska Department of
Environmental Quality
Iron Horse Professional Building
214 North 7th St., Suite 4
Norfolk, NE 68701

Phone: (402) 370-4424

An Ongoing Saga

Due to the enormous amount of work to be accomplished prior to the February 2002 EPA deadline, DEQ, the limestone processors, and local officials are working with determination to find solutions to the air quality problems in the Weeping Water area. The project is quickly moving forward with the goal of avoiding additional exceedances of the particulate air quality standard. Updates on the Weeping Water situation will be posted on the DEQ website (www.deq.state.ne.us).

Article by Greg L. Votava

Scrap Tires See More Mile

It is estimated that Nebraskans generate 1.6 million scrap tires annually, or approximately one tire per Nebraska resident each year. What happens to all those tires, you might ask. It all starts when you purchase a new tire.

Although the laws pertaining to scrap tire management and grant programs have been revised several times, a \$1 fee on the sale of each new tire in the state has remained unchanged since 1992. The tire fee has raised a total of \$11.6 million to be used towards the management of Nebraska's scrap tires.

Between June 1997 and June 1999, under the Scrap Tire Reduction and Recycling Incentive Fund, DEQ awarded over \$5.2 million to clean up approximately 4.3 million scrap tires. This represents 422 grant awards for nearly 450 cleanup sites. Of these awards, 94 were made to political subdivisions for cleanup efforts, which included scrap tire amnesty days. At scrap tire amnesty events, residents brought in tires to local collection sites.

The tires collected through cleanups, as well as scrap tires continually being generated, have gone to numerous end-uses including:

- Playground tiles and loose material;
- Athletic track resurfacing at schools across the state;
- FieldTurf for football fields such as at Memorial Stadium in Lincoln;
- Various molded rubber products;
- Alternative daily cover, and leachate collection systems at landfills;
- Erosion-control mats along streams and rivers;
- Blowout stabilization on Nebraska ranches;
- Erosion control at feedlots and lakes; and
- Various civil engineering projects



(Left) A would-be runner left these footprints in the muddy running track at David City's Memorial Field, which will soon be covered with a poured rubber surface.

David City Photos by Andrew Brannen



(Left) The city of David City received a grant for \$178,972 to re-surface its running track.

(Right) Under construction in South Lincoln, the playground at Densmore Park utilizes both a crumb rubber and a poured rubber surface. Construction workers pour concrete sidewalks in the background.



(Left) A shovel toy at Densmore Park pouring a scoop of crumb rubber back on the pile.

In addition, some scrap tires have been shipped to Kansas and Colorado for disposal.

...More Smiles

The first \$1 million collected annually from the tire fee is available exclusively for scrap tire projects. These funds are available to all applicants, public and private. Some examples of specific projects receiving grant funds are pictured on these pages, and additional projects receiving grant funds are listed below.

To request a grant application packet, or to receive additional information about DEQ's scrap tire management program, contact the Grants and Planning Unit at (402) 471-3388, or leave a message on the DEQ website (www.deq.state.ne.us).

Tom Osborne Field

During July and August of 1999 the turf on Tom Osborne Field in Memorial Stadium was replaced with FieldTurf, a surface that contains a very fine, ground rubber from recycled tires. John Ingram, Director of Athletic Facilities at the University of Nebraska - Lincoln said, "This is a fabulous surface. It is the most grass-like surface we have used. It is also much easier on the players, it's not as abrasive, and it is generally a much safer surface."

The turf on Tom Osborne Field contains 220,500 pounds of rubber, which equals 14,500 recycled tires. About 50,000 tires were actually recycled to come up with the proper grade of rubber for the field. The remaining rubber that wasn't at the proper grade was then used for other projects.

UNL has also used recycled rubber for fields at Cook Pavilion, Schulte Field House and for landscaping at Ed Weir Track. Combined, the university projects have resulted in a total of 150,000 tires being recycled.



(Above) A close-up shot of the FieldTurf at the University of Nebraska's Memorial Stadium.

(Left) 50,000 tires were processed to create enough rubber for Tom Osborne Field.



2001 Scrap Tire Grant Awards

Awarded Funding	Applicant Name	Project Description
\$39,283.00	Cambridge Public Schools	Construction of a running track with a rubberized surface.
\$81,500.00	Chadron Public Schools	Crumb rubber poured-in-place surface for two elementary schools.
\$7,177.00	Conestoga Public Schools (Murray)	Loose fill recycled rubber for a playground surface.
\$178,972.00	David City, City of	Construction of a running track with a rubberized surface.
\$25,000.00	Elm Creek Public Schools	Resurface a running track with a rubberized surface.
\$2,100.00	Heartland Community Schools (Bradshaw)	Construction of a playground surface with recycled rubber materials.
\$50,000.00	JaiTire Industries, Inc. (Denver, CO)	Market development to promote crumb rubber topdressing from Nebraska tires.
\$3,775.00	Lee Pester (Lincoln)	One gooseneck trailer and one bumper pull trailer for hauling scrap tires.
\$43,859.69	Lincoln Parks & Recreation	Recycled tire mats and poured-in-place surfacing for eight Lincoln parks.
\$22,723.05	Madison Public Schools	Resurface a running track with a rubberized surface.
\$85,055.00	* Nebraska Ag Products Co. (Wisner)	Use 350,000 scrap tires in bales to build a dike to prevent flooding east of Wisner.
\$2,430.00	Nebraska City, City of	Replace paths in municipally owned golf course with recycled crumb rubber.
\$300,000.00	Nebraska Wesleyan University (Lincoln)	Install FieldTurf on a football/soccer field.
\$10,200.00	* Nemaha NRD (Tecumseh)	Use scrap tire bales to stabilize severe erosion on a watershed dam.
\$29,310.26	River City Recycling Div. of Spectracom	Partial funding toward the purchase of one live floor trailer to haul scrap tire chips.
\$80,410.00	* Upper Big Blue NRD (York)	Contractual costs for a scrap tire bale project to reduce stream bank erosion.
\$38,205.00	Wahoo Public Schools	Resurface a playground with recycled rubberized material.
\$1,000,000.00	Total	

* Funds are reserved at this time. Actual award will not occur until project engineering and design are approved by DEQ.

Article by Greg L. Votava and
Ruth Johnston
Photos by Greg L. Votava

DEQ's Biological Lab

One of Our Best-kept Secrets

Lab is one of DEQ's best-kept secrets, but it provides a critical function in the protection of Nebraska's surface water.

In 1984, Program Specialist Ken Bazata was hired as a temporary employee by DEQ and helped to establish the original Bio Lab. At that time it was part of the State Health Lab located on South 14th Street in Lincoln. In 1989 it was moved to an unused dormitory on the Nebraska Regional Center campus. Finally in 1993, following DEQ's move to the Atrium, the Bio Lab was set up on the lower level of the building.

DEQ's Surface Water Unit conducts regular monitoring of lakes, rivers and streams, for which the Bio Lab provides analysis. Two of the major programs the lab supports are the:

- **Ambient Pesticide Study** - This is the collection and analysis of weekly samples of water for three of the most widely used pesticides in Nebraska: alachlor, atrazine and metolachlor. In the Bio Lab, staff use an analysis method called enzyme immunoassay to assess a stream's aquatic life use support. With over 2000 samples taken annually and three parameters tested on each sample, there are approximately 6,000 pesticide analyses conducted per year. With the Bio Lab using the enzyme immunoassay method at a cost of just \$8 per sample, DEQ saves over \$250,000 each year as opposed to using the more conventional GCMS analysis method.

- **Regional Environmental Monitoring & Assessment Program (R-EMAP)** – This program assesses the biological condition of streams in Nebraska by looking at a variety of factors. These include physical, biological, and chemical parameters,

If you haven't been in the Atrium building in downtown Lincoln during a tornado warning, chances are you may not know that the DEQ Biological Lab is located on the lower level of the building. The Bio

including macroinvertebrate (e.g. insects) and fish data. Test sites are randomly selected by the U.S. Environmental Protection Agency and sampled by the Surface Water Unit, providing data that is used to make water quality status determinations for the entire state. The insect samples are sorted in the Bio Lab.

Bio Lab coordinator David Schumacher said, "Most of the regular field sampling takes place from April through October when we have about eight or nine seasonal, temporary employees on staff.

department at the end of April, I've had the chance to see a lot of Nebraska and it's a beautiful state."

Additionally, the Surface Water Unit and Bio Lab provide analysis support to other sections of DEQ and other state agencies for situations like the investigation of fish kills and various citizen complaints. Often the primary objective of this function is to document a water quality violation to be used in legal enforcement cases. An estimated 30-35 fish kills will be studied each year by the Surface Water Unit,

oftentimes working jointly with the Nebraska Game and Parks Commission. Approximately 20-25 citizen complaints might be expected during a given year.

One of the more interesting discoveries in the lab's history was the identification of the Topeka Shiner in Madison County in 1996. This minnow is on the Federal Endangered Species List, and in Nebraska, was thought only to

exist in the Sandhills area.



Photo by Greg L. Votava

In the Bio Lab, Amelia Zoerb sorts macroinvertebrates under the microscope, while Jeff Boeckler tests water samples for the pesticide alachlor.

Seasonal employees play a vital role in the functions of the Bio Lab. John Lund, Supervisor of the Surface Water Unit said, "It's a real win-win situation for everyone. The temps gain great experience and the agency has an efficient way of meeting its obligations. And they're great people too." Of the eight seasonal employees this year, two have Masters degrees, three have Bachelors degrees and three are undergraduates. One of the employees, Jeff Boeckler, came all the way from Prince George, British Columbia to spend the summer working for DEQ. Boeckler commented, "The technical experience is very important to me, plus I really needed the American job market experience. Since starting with the

Article by Greg L. Votava

Clean Water Win Pays Big Return

What started six years ago as a tip-off about some questionable activities has resulted in penalties of more than \$1 million being assessed to two companies for five misdemeanor violations of the Clean Water Act, and a criminal conviction for one of the company's managers.

DEQ began its initial investigation into PeopleService Inc. of Omaha in 1995, looking into the company's alleged failure to ensure that employees were operating wastewater treatment plants in accordance with permits issued under the Clean Water Act. The company, which was later purchased by UtiliCorp United Inc., of Kansas City, Mo., had contracted to operate the plants for several small towns and mobile home parks in eastern Nebraska.

DEQ Program Specialist Patrick O'Brien said, "We quickly realized that we weren't qualified to do a criminal investigation and called in the service of the State Patrol." Eventually the investigation progressed to include the efforts of five government agencies. "DEQ, the EPA Region VII Criminal Investigation Division, the Nebraska State Patrol, the Department of Justice, and the U.S. Attorney's Office were all vital to the successful conviction," continued O'Brien. DEQ Program Specialist Chris Helms added, "We want to give special thanks to Investigator Donald Pounds of the Nebraska State Patrol whose efforts helped out immensely."

About 1½ years of preliminary sampling and investigation provided enough evidence to secure a search warrant for the Valley, Nebraska facility of PeopleService Inc. The warrant, which was executed in August of 1997, involved DEQ and several State Patrol officers who seized many records, which were then used to solidify the case.

"We were actually doing covert surveillance," O'Brien quipped. "We did some midnight sampling." Investigator Pounds also set up a surveillance

...Ethanol,

continued from page 1

producers to contact DEQ's Air Quality Division early in the process, but that rule also applies to any new business that may need to obtain air and other environmental permits. "DEQ's Environmental Assistance Division can play an important role in helping coordinate the permitting of a new facility," said Tom Franklin, the Division's Environmental Assistance Coordinator. If a company is unsure of procedures, they should contact the division, so a coordinated approach can be developed."

"Through our One-Stop Permitting

program, we put prospective businesses in touch with all of the programs that they may need to seek permits from," Franklin said. "In addition, we can provide advice and assistance to existing businesses that are trying to understand our regulations and what they need to do to comply."

Article by Brian McManus

MTBE Detected in Nebraska Ground Water

Since DEQ began requiring sampling for methyl tertiary-butyl ether (MTBE) in June of 1999, the chemical has been found in ground water at 10% of the sites investigated by DEQ where underground petroleum storage tanks have leaked. The chemical, which was commonly used as a gasoline fuel additive across the United States, has been detected at 46 out of 458 release sites. MTBE has also been found in drinking water supplies in six Nebraska communities, although at amounts well below drinking water advisory levels.

In relation to California and other highly industrialized regions of the country, Nebraska's MTBE statistics are comparatively low. Most of these regions used MTBE extensively as a fuel additive, to comply with federal requirements to improve air quality. Nebraska was not subject to these rules because it is an "attainment" state, meaning that its air quality passes federal standards.

Currently, the health impacts of MTBE are not well known and a matter of much debate. Although generally considered less toxic than other gasoline constituents, concerns have been raised regarding the potential for negative health effects. The EPA officially classifies MTBE as a possible human carcinogen.

In addition to potential health effects, MTBE at levels of 20-40 parts per billion (ppb) can cause water to have an unpleasant odor and taste. The EPA has issued a Drinking Water Advisory, which recommends managing water supplies to avoid the odor and taste problems that become evident at 20-40 ppb. The highest level detected in Nebraska drinking water supplies has been 5 ppb.

David Chambers, DEQ's LUST/Release Assessment Section Supervisor said, "MTBE is a concern mainly because its presence in the range of the EPA advisory causes taste and odor problems which make water unsuitable for drinking. As far as potential health effects, we are more concerned about benzene, a known carcinogen, and other more common substances with known adverse health effects."

Article by Brian McManus

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...E-waste, *continued from page 4*

their electronic waste delivered to the market. What we are likely to see in the future of e-waste, he said, includes:

- An increase in the number of businesses that will refurbish and recycle electronic equipment. This will help keep more equipment in continued use, and out of landfills;
- Additional take back programs by electronic equipment manufacturers; and
- Greater use of alternative products, such as LCD panels and plasma screens for televisions and computers. These

items contain little or no hazardous material.

Article by Rich Webster

E-waste: What Should I Do?

DEQ encourages households to follow these steps in getting rid of unwanted, obsolete, or unusable computers, computer monitors, and televisions:

- If the equipment is still usable, consider selling it, giving it to a friend or family member, or donating it to a school, charity, non-profit, or similar organization. Before making a donation, be sure to contact the organization to find out what equipment it accepts to avoid a situation where your charitable act creates a disposal problem for the organization.
- Give it to a refurbisher who can resell, refurbish, or use it for parts.
- As a last resort, if the equipment is unusable, it can be put with the trash for disposal in a landfill.

For all waste generators other than households, DEQ offers the following advice based on state hazardous waste regulations.

- Excess computer equipment should be re-used to the extent possible. Equipment that is *still usable* and is given away, sold, or sent to a legitimate refurbisher is not considered a solid waste, and thus, not subject to hazardous waste management rules.
- If the equipment cannot be re-used, sent to a refurbisher, returned to the manufacturer, or is unserviceable, it must be disposed of according to the hazardous waste generator status of the business, organization, or agency. If you are unsure of your generator status, contact DEQ's Waste Management Compliance Unit.

To obtain a copy of DEQ Environmental Guidance Document 00-004, Waste Computers and Monitors, or for additional information, contact DEQ's Waste Management Compliance Unit at (402) 471-4210, or toll-free (877) 253-2603, ext. 4210

Article by Rich Webster

Calendar of Events

July 11

Solid Waste Association of North America, Waste Screening Training; Northeast Community College Learning Center, Norfolk
More Information: (402) 476-2829

July 12

Weeping Water/Cass County Air Quality Informational Open House and Public Meeting;
Open House: 4-6 p.m. Presentations by DEQ, EPA and Trinity Consultants, 7-8 p.m.; Community Hall, 303 West Eldora, Weeping Water
More Information: (402) 471-3305

July 23-25

Basic air quality training in New Source Review/Prevention of Significant Deterioration (NSR/PSD); Chase Suite Hotel, 200 South 68th Place, Lincoln
More Information: (402) 471-2189

August 23-24

Region VII Environmental and Safety Symposium; Hyatt Regency Crown Center, Kansas City, MO
More Information: (573) 634-2246
www.aimo.com/events/regionvii.htm

September 7

Quarterly meeting of the Environmental Quality Council; Downtown Holiday Inn, Lincoln

September 10

Applications for Section 319 Nonpoint Source Management Grants must be received no later than 5 p.m. at the Lincoln DEQ office

Hazardous Waste:

Did You Know?

Generators of hazardous waste (except conditionally exempt small quantity generators) must determine if their wastes need to be treated *before* land disposal.

The “land disposal restrictions” (LDRs) are in Title 128 – Rules and Regulations Governing Hazardous Waste Management in Nebraska, Chapter 20. A key point of the LDR rules is that the LDR attaches to your hazardous waste at the point of generation, not at the point of disposal. Once attached, the LDRs apply until the Chapter 20 treatment standards are met.

A common LDR mistake is failing to determine if hazardous waste that exhibits a characteristic has *underlying hazardous constituents* and that these underlying constituents are identified to the treatment, storage, or disposal permitted facility. There are a few exceptions to this requirement. One example: a hazardous waste that exhibits the ignitability characteristic (D001) that is also a high total organic carbon liquid does not need to be checked for underlying hazardous constituents.

Another common mistake involves failing to keep land disposal restriction records for three years. By the way, the land disposal restriction paperwork many of you receive from your hazardous waste disposal contractors does not relieve you of your responsibility to ensure that the paperwork is accurate and fully represents your hazardous waste streams. You’ll be glad to know that the LDR notification you send to the permitted facility only needs to be sent with the initial shipment of the hazardous waste. You don’t need to send further notifications unless the waste or permitted facility change.

If you’re thinking you might need to

“A common LDR mistake is failing to determine if hazardous waste that exhibits a characteristic has underlying hazardous constituents and that these underlying hazardous constituents are identified to the treatment, storage, or disposal permitted facility.”

know more about the LDR program as it applies to your business or operation please call Jim Harford, DEQ Hazardous Waste Compliance Assistance, at (402) 471-8308. You can look at Title 128 by going to the DEQ

website (www.deq.state.ne.us) and clicking on “Rules and Regulations.”

Article by Jim Harford

Cleanup Funding Available

Have you ever been driving down a county road, noticed a pile of trash in a ditch and wished that people wouldn’t be so careless? Have you ever wondered if there was a way to get the mess cleaned up?

Nebraska’s roadways are cleaner today as a result of the Illegal Dump Site Cleanup Program, yet many people are not aware of the funding that is available through the program.

In 1997, Nebraska’s legislature passed LB 495, which provides funds to reimburse political subdivisions for their costs in cleaning up illegal dump sites along public roadways or ditches. Steve Danahy, Unit Supervisor for the DEQ Waste Management Division, Planning and Aid Unit said, “Any political subdivision such as a city, county, or NRD can submit an application to DEQ and be reimbursed for their clean up expenses. Since the program started, we have had 22 entities take advantage of the program, but we want to be sure that the word is getting out to everyone.”

There is no need to apply for the funds in advance. Subdivisions can either do the work themselves, accounting for the labor and equipment used, or they can contract for the clean up services. Then they simply submit

an application form with copies of their invoices to DEQ for reimbursement.

Funding for the program comes from fees collected at landfills.

Typically there is about \$100,000 available each year, with about \$60-70,000 being awarded annually. “We would like to see the total amount get used each year,” said Danahy. If applications are received after the total available funds for a year have been awarded they may be eligible during the next fiscal year.

Applicants are also educated about and encouraged to use measures to prevent future illegal disposal from occurring. Some of these measures include posting signs; erecting fences or gates; publicizing initiatives for enforcement against violators; and increased prosecution. Applicants are also encouraged to share any particular methods they are using that have reduced illegal dumping.

To learn more about the program contact Steve Danahy at (402) 471-0273.

Article by Greg L. Votava



...Clean Water Win, *continued from page 9*

camera about ¼ mile from one facility and observed staff activities for about a month.

Under the sentences issued in U.S. District Court on March 15, UtiliCorp will pay \$1 million. Of that total, \$100,000 will go to the U.S. Treasury, \$150,000 will be sent to the Nebraska Environmental Trust and \$750,000 will be directed to Back to the River Inc.

Jeffrey J. Frey, a former regional manager of water and wastewater treatment operations for PeopleService in Nebraska, was sentenced to two years of probation for filing false reports and for making false statements to state and federal environmental agencies.

“This is a message to the corporate community that they have to be responsible for the environment, and if they’re not, it can be very expensive for them,” said U.S. Attorney Tom Monaghan.

DEQ Director Mike Linder expressed his appreciation for the tenacious efforts of O’Brien and Helms, as well as the cooperation of all the agencies involved.



Photo by Greg L. Votava

Turn to the center feature section on pages 6 & 7 to learn about the connection between football and recycled tires.

Article by Greg L. Votava



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